Research in International Business and Finance 31 (2014) 178–192

Contents lists available at ScienceDirect

Research in International Business and Finance

journal homepage: www.elsevier.com/locate/ribaf

The impact of culture on market timing in capital structure choices☆

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ARTICLE INFO

Article history:
Received 6 July 2012
Received in revised form 6 March 2013
Accepted 6 June 2013
Available online 23 September 2013

JEL classification:
G-3

Keywords:
Culture
Capital structure
Market timing
International financial markets

ABSTRACT

This study uses Hofstede's (2001) cultural dimensions to investigate the impact of market reception on capital structure. We examine the interaction of these dimensions with stock returns, our proxy for market timing. Based on our market leverage results, we find evidence that firms do engage in market timing by reducing their leverage ratios when their share prices increase. Furthermore, we find that firms in countries with high uncertainty avoidance and high power distance have lower market leverage ratios and that these cultural dimensions serve to reduce the impact of market timing. These results are consistent for developed markets but mixed for emerging markets. On a book leverage basis, the results are generally consistent but less conclusive. To the extent that culture impacts manager perception of risk and investor reception of newly issued shares, we conclude that cultural dimensions impact the degree to which a firm can modify its capital structure to take advantage of perceived market mispricings.

1. Introduction

Evidence suggests that firms may issue equity when their shares are trading at high values and then repurchase when shares are perceived to be undervalued. According to Graham and Harvey (2001), over 62% of CFOs surveyed responded that an important factor affecting the firm's decision to

☆ The authors acknowledge support from the UNCW Cameron School of Business IMBA program. The authors thank the anonymous referees for their valuable suggestions.

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http://dx.doi.org/10.1016/j.ribaf.2013.06.007

issue common stock is whether the firm's share price has risen recently, indicating that they would consider timing the sale of shares at "high" prices (p. 216). Alti and Suleiman (2012) find evidence to support such market timing behavior, but only when the high stock returns are accompanied by investor demand. They suggest that market reception plays an important role in whether high stock returns will motivate firms to seek equity financing.

Capital structure decisions based on market timing have been tested several ways, including examining (1) the performance of IPOs, (2) the behavior of insiders, and (3) the relationship between returns or market-to-book values and capital structures. Applying the first approach, Ritter (1991) identifies "windows of opportunity" where firms launch IPOs when they are overvalued, leading to subsequent underperformance of the shares due to mispricing. Loughran and Ritter (1995) identify long-run underperformance of IPOs and seasoned equity offerings (SEOs), also suggesting that firms issue stock when the shares are overvalued. In a second line of research, Chazi and Tripathy (2007) examine insider trading as it relates to capital structure. Their work follows Agrawal and Madelker (1987) who find that insider holdings increase with debt-equity ratios. Baker and Wurgler (2000) take the third approach, examining capital structure in light of stock returns and find that higher proportions of equity precede declining stock returns. A second study by Baker and Wurgler (2002) finds that managers issue equity when shares exhibit relatively high market-to-book ratios, suggesting that firms "time" the markets by issuing equity when shares are overvalued.

Our study extends the literature on the market timing hypothesis by examining the relationship between stock returns and capital structure across an international sample of firms. We use Hofstede's (2001) cultural dimensions to investigate the impact of market reception on capital structure. We also investigate the interaction of these cultural dimensions with stock returns, which we use as a proxy for market timing. Our primary research question is whether firms in cultures that exhibit high uncertainty avoidance and high power distance experience the same market timing phenomenon as firms in cultures with low uncertainty avoidance and low power distance. To the extent that culture impacts investor reception of newly issued shares, we expect these cultural dimensions to impact the degree to which a firm can modify its capital structure to take advantage of perceived market mispricings.

Our findings lend support to the market timing theory of capital structure. In particular, we find that annual market returns are negatively and significantly related to market leverage ratios. The negative impact appears to be tempered, however, for firm in countries that exhibit high uncertainty avoidance and high power distance. These findings are robust for firms in developed markets, but the results are mixed for firms in emerging markets.

The remainder of our study is organized as follows: Section 2 reviews the prior literature, Section 3 presents the hypotheses, and Section 4 describes the data and methodology. Section 5 discusses the results and Section 6 concludes.

2. Prior literature

Our study is most closely related to the literature that investigates variation in capital structures across cultures. In this section we summarize capital structure theory and the literature on culture and financing decisions.

2.1. Theories of capital structure

The question of equity versus debt financing has been explored in the finance literature since 1958 when Modigliani and Miller proposed that firm leverage does not impact firm value. Their "irrelevance" proposition was later modified with the introduction of static trade-off theory, which suggests that firms seek target capital structures where the tax benefits of interest deductibility are offset by the costs of financial distress (Modigliani and Miller, 1963; Kraus and Litzenberger, 1973). Departing from the theory of an optimal capital structure, Myers and Majluf (1984) use the Pecking Order theory to describe the hierarchy of preferences that firms follow as they choose their capital structures. According to this theory, firms prefer internally generated funds over borrowed money or equity financing.